WHAT IS CLAIMED IS:

1. An isolated antibody that binds specifically to a stalk of CD30 (SEQ ID NO:1) of a cell, or to an epitope destroyed upon cleavage of soluble CD30 ("sCD30") from intact CD30.

2. An antibody of claim 1, wherein said antibody is selected from the group consisting of an Fab, a single chain variable region ("scFV"), and a disulfide stabilized recombinant variable region ("dsFv").

3. An antibody of claim 1, which binds to a peptide selected from the group consisting of: residues 329 to 379 of SEQ ID NO:1, residues 339 to 379 of SEQ ID NO:1, residues 349 to 379 of SEQ ID NO:1, residues 359 to 379 of SEQ ID NO:1, and residues 369 to 379 of SEQ ID NO:1.

4. An antibody of claim 1, which binds to an epitope of CD30 mapping to Epitope IIa or Epitope VI of CD30 (SEQ ID NO:1).

5. An antibody of claim 4, which has the complementarity determining regions ("CDRs") of antibody T105, as shown in Figures 2a and b.

6. An antibody of claim 1, which has the complementarity determining regions ("CDRs") of antibody T201, as shown in Figures 2a and b.

7. A composition comprising an antibody of claim 1, conjugated or fused to a therapeutic moiety.

8. A composition comprising an antibody of claim 3, conjugated or fused to a therapeutic moiety.

9. A composition comprising an antibody of claim 4, conjugated or fused to a therapeutic moiety.

10. A composition comprising an antibody of claim 5, conjugated or fused to a therapeutic moiety.

11. A composition comprising an antibody of claim 6, conjugated or fused to a therapeutic moiety.

12. A composition of claim 7, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug or a cytotoxin.

13. A composition of claim 8, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug or a cytotoxin

14. A composition of claim 9, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug or a cytotoxin.

15. A composition of claim 10, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug or a cytotoxin.

16. A composition of claim 11, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug or a cytotoxin.

17. A composition of claim 15, wherein the cytotoxin is selected from the group consisting of ricin A, abrin, ribotoxin, ribonuclease, saporin, calicheamycin, diphtheria toxin, a *Pseudomonas* exotoxin, and botulinum toxins A through F.

18. A composition of claim 12, wherein the cytotoxin is selected from the group consisting of ricin A, abrin, ribotoxin, ribonuclease, saporin, calicheamycin, diphtheria toxin, a *Pseudomonas* exotoxin, and botulinum toxins A through F.

19. A composition of claim 18, wherein said *Pseudomonas* exotoxin is selected from the group consisting of PE35, PE38, PE38KDEL, PE40, PE4E, and PE38QQR.

20. A composition of claim 7, further comprising a pharmaceutically acceptable carrier.

21. A use of an anti-CD30 antibody that binds specifically to a stalk of CD30 (SEQ ID NO:1) of a cell, or to an epitope destroyed upon cleavage of sCD30 from

intact CD30, for the manufacture of a medicament to inhibit the growth of a CD30+ cancer cell.

22. A use of claim 21, wherein said antibody is selected from the group consisting of an scFv, dsFv, a Fab, or a $F(ab')_2$.

23. A use of a composition, which composition comprises an antibody of claim 1 conjugated or fused to a therapeutic moiety, for the manufacture of a medicament for inhibiting growth of a CD30+ cancer cell.

24. A use of claim 23, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug or a cytotoxin.

25. A use of claim 24, wherein said cytotoxin is a *Pseudomonas* exotoxin.

26. A use of claim 25, wherein the *Pseudomonas* exotoxin is PE38.

27. A nucleic acid encoding an antibody that binds specifically to a stalk of CD30 (SEQ ID NO:1) of a cell, or to an epitope destroyed upon cleavage of sCD30 from intact CD30.

28. A nucleic acid of claim 27, wherein said antibody binds to an epitope of CD30 selected from Epitope IIa and VI.

29. A nucleic acid of claim 27, further wherein said nucleic acid encodes a polypeptide which is a therapeutic moiety.

30. An expression vector comprising a nucleic acid of claim 27 operably linked to a promoter.

31 An expression vector comprising a nucleic acid of claim 28, operably linked to a promoter.

32. An expression vector comprising a nucleic acid of claim 29 operably linked to a promoter.

33. A method of inhibiting growth of a CD30+ cancer cell by contacting said cell with an antibody that binds specifically to a stalk of CD30 (SEQ ID NO:1) of a cell,

or to an epitope destroyed upon cleavage of sCD30 from intact CD30, which antibody is fused or conjugated to a therapeutic moiety, which therapeutic moiety inhibits growth of said cell.

34. A method of claim 33, wherein said antibody is selected from the group consisting of an scFv, a dsFv, a Fab, or a $F(ab')_2$.

35. A method of claim 33, wherein said antibody binds to an epitope selected from the group consisting of Epitope IIa and VI.

36. A method of claim 33, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug or a cytotoxin. therapeutic moiety is a cytotoxin.

37. A method of claim 36, wherein the cytotoxin is selected from the group consisting of ricin A, abrin, ribotoxin, ribonuclease, saporin, calicheamycin, diphtheria toxin, a *Pseudomonas* exotoxin, and botulinum toxins A through F.

38. An anti-CD30 antibody, wherein said antibody comprises a sequence of at least one complementarity determining region ("CDR") shown in Figure 2 of a sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:7, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:22, SEQ ID NO:29, SEQ ID NO:38 and SEQ ID NO:39.

39. An anti-CD30 antibody of claim 38, wherein the antibody has a variable heavy chain and a variable light chain, which chains have sequences selected from the group consisting of: a variable heavy chain of SEQ ID NO:2 and a variable light chain of SEQ ID NO:15 (antibody T6); a variable heavy chain having the sequence of SEQ ID NO:4 and a variable light chain having the sequence of SEQ ID NO:17 (antibody T13); a variable heavy chain of SEQ ID NO:7 and a variable light chain of SEQ ID NO:22 (antibody T25), a variable heavy chain of SEQ ID NO:14 and a variable light chain of SEQ ID NO:29 (antibody T105), and a variable heavy chain of SEQ ID NO:38 and a variable light chain of SEQ ID NO:39 (antibody T201).

40. An antibody of claim 38 wherein the antibody is a disulfide stabilized recombinant variable region ("dsFv").

41. An antibody of claim 39 wherein the antibody is a disulfide stabilized recombinant variable region ("dsFv").

42. A composition comprising an antibody of claim 38, conjugated or fused to a therapeutic moiety.

43. A composition of claim 42, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug and a cytotoxin.

44. A composition of claim 43, wherein the cytotoxin is selected from the group consisting of ricin A, abrin, ribotoxin, ribonuclease, saporin, calicheamycin, diphtheria toxin, a *Pseudomonas* exotoxin, and botulinum toxins A through F.

45. A composition of claim 44, wherein said cytotoxin is a *Pseudomonas* exotoxin selected from the group consisting of PE35, PE38, PE38KDEL, PE40, PE4E, and PE38QQR.

46. A use of an anti-CD30 antibody, wherein said antibody comprises of at least one complementarity determining region ("CDR") shown in Figure 2 of a sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:7, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:22, SEQ ID NO:29, SEQ ID NO:38 and SEQ ID NO:39 for the manufacture of a medicament to inhibit the growth of a CD30+ cancer cell.

47. A use of claim 46, wherein said antibody is a dsFv.

48. A use of a composition for the manufacture of a medicament for inhibiting growth of a CD30+ cancer cell, which composition comprises an antibody of claim 46 conjugated or fused to a therapeutic moiety.

49. A use of claim 48, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug and a cytotoxin.

50. A use of claim 49, wherein the cytotoxin is selected from the group consisting of ricin A, abrin, ribotoxin, ribonuclease, saporin, calicheamycin, diphtheria toxin, a *Pseudomonas* exotoxin, and botulinum toxins A through F.

51. A use of claim 50, wherein said *Pseudomonas* exotoxin is selected from the group consisting of PE35, PE38, PE38KDEL, PE40, PE4E, and PE38QQR.

52. A nucleic acid encoding an anti-CD30 antibody, wherein said encoded antibody comprises one or more complementarity determining regions ("CDRs") as set forth in Figure 2 of a variable heavy or variable heavy chain selected from the group consisting of: SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:7, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:22, SEQ ID NO:29, SEQ ID NO:38 and SEQ ID NO:39.

53. A nucleic acid of claim 52, wherein said antibody is a dsFv.

54. A nucleic acid of claim 52, further wherein said nucleic acid encodes a polypeptide which is a therapeutic moiety.

55. A nucleic acid of claim 54, further wherein said therapeutic moiety is a drug or a cytotoxin.

56. A nucleic acid of claim 55, further wherein said cytotoxin is a *Pseudomonas* exotoxin.

57. An expression vector comprising a nucleic acid of claim 52 operably linked to a promoter.

58. An expression vector comprising a nucleic acid of claim 55, operably linked to a promoter.

59. A method of inhibiting growth of a CD30+ cancer cell by contacting said cell with an antibody having at least one complementarity determining region as shown in Figure 2 of a variable heavy or variable light chain selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:7, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:22, SEQ ID NO:29, SEQ ID NO:38 and SEQ ID NO:39, which antibody is fused or conjugated to a therapeutic moiety, which therapeutic moiety inhibits growth of said cell.

60. A method of claim 59, wherein said antibody is a dsFv.

61. A method of claim 59, wherein said therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug and a cytotoxin.

63. A method of claim 61, wherein the cytotoxin is selected from the group consisting of ricin A, abrin, ribotoxin, ribonuclease, saporin, calicheamycin, diphtheria toxin, a *Pseudomonas* exotoxin, and botulinum toxins A through F.

64. A method for detecting the presence of a CD30+ cell in a biological sample, said method comprising:

(a) contacting cells of said biological sample with an anti-CD30 antibody selected from the group consisting of: an antibody that binds specifically to a stalk of CD30 (SEQ ID NO:1) of a cell, or to an epitope destroyed upon cleavage of sCD30 from intact CD30, and an antibody having at least one complementarity determining region as shown in Figure 2 of a variable heavy chain or variable light chain selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:7, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:22, SEQ ID NO:29, SEQ ID NO:38 and SEQ ID NO:39, said antibody being fused or conjugated to a detectable label; and,

(b) detecting the presence or absence of said label,

wherein detecting the presence of said label indicates the presence of a CD30+ cell in said sample.

65. A method of claim 64, wherein said antibody is selected from the group consisting of an scFv, a dsFv, a Fab, or a $F(ab')_2$.

66. An antibody having at least one variable heavy chain or variable light chain selected from the group consisting of SEQ ID NO:6, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:21, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:40, and SEQ ID NO:41.

67. An antibody of claim 66, wherein said antibody has a variable heavy chain and a variable light chain selected from the group consisting of: (a) SEQ ID NO:6, and SEQ ID NO:21 (antibody T24), (b) SEQ ID NO:11 and SEQ ID NO:26 (antibody T420), (c)

SEQ ID NO:12 and SEQ ID NO:27 (antibody T427), (d) SEQ ID NO:13 and SEQ ID NO:28 (antibody T405), and (e) SEQ ID NO:40 and SEQ ID NO:41 (antibody T408).

68. A composition comprising an antibody of claim 66 and a pharmaceutically acceptable carrier.

69. A composition of an antibody of claim 67 and a pharmaceutically acceptable carrier.

70. Use of an antibody of claim 66 for the manufacture of a medicament to inhibit the growth of cancer cells expressing CD30.

71. A method for inhibiting the growth of cancer cells expressing CD30, said method comprising administering to a patient having a CD30-expressing cancer a therapeutically effective amount of an antibody having at least one variable heavy chain or variable light chain selected from the group consisting of SEQ ID NO:6, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:21, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:40, and SEQ ID NO:41.

72. A method for inhibiting the growth of cancer cells expressing CD30, said method comprising administering to a patient having a CD30-expressing cancer a therapeutically effective amount of an antibody having the complementarity determining regions ("CDRs") of variable heavy and variable light chains selected from the group consisting of (a) SEQ ID NO:6, and SEQ ID NO:21 (antibody T24), (b) SEQ ID NO:11 and SEQ ID NO:26 (antibody T420), (c) SEQ ID NO:12 and SEQ ID NO:27 (antibody T427), (d) SEQ ID NO:13 and SEQ ID NO:28 (antibody T405), and (e) SEQ ID NO:40 and SEQ ID NO:41 (antibody T408).

73. Use of an antibody having at least one complementarity-determining region of a mouse monoclonal antibody designated as AC10 for the manufacture of a medicament to inhibit the growth of cancer cells expressing CD30.

74. A use of claim 73, wherein the antibody has variable heavy and variable light chains as in antibody AC10.

75. A method for inhibiting the growth of cancer cells expressing CD30, said method comprising administering to a patient having a CD30-expressing cancer a

therapeutically effective amount of antibody having at least one complementarity-determining region ("CDR") of a mouse monoclonal antibody designated as AC10.

76. A method of claim 75, wherein the CDRs of the variable heavy and variable light chains of said antibody are as in antibody AC10.

77. A method of claim 76, wherein the variable heavy and variable light chains of said antibody are as in antibody AC10.

78. An isolated nucleic acid encoding an antibody having the complementarity determining regions ("CDRs") of variable heavy and variable light chains selected from the group consisting of (a) SEQ ID NO:6, and SEQ ID NO:21 (antibody T24), (b) SEQ ID NO:11 and SEQ ID NO:26 (antibody T420), (c) SEQ ID NO:12 and SEQ ID NO:27 (antibody T427), (d) SEQ ID NO:13 and SEQ ID NO:28 (antibody T405), and (e) SEQ ID NO:40 and SEQ ID NO:41 (antibody T408).

79. An isolated nucleic acid encoding an antibody having variable heavy and variable light chains selected from the group consisting of (a) SEQ ID NO:6, and SEQ ID NO:21 (antibody T24), (b) SEQ ID NO:11 and SEQ ID NO:26 (antibody T420), (c) SEQ ID NO:12 and SEQ ID NO:27 (antibody T427), (d) SEQ ID NO:13 and SEQ ID NO:28 (antibody T405), and (e) SEQ ID NO:40 and SEQ ID NO:41 (antibody T408).

80. A host cell expressing an isolated nucleic acid encoding an antibody having variable heavy and variable light chains selected from the group consisting of (a) SEQ ID NO:6, and SEQ ID NO:21 (antibody T24), (b) SEQ ID NO:11 and SEQ ID NO:26 (antibody T420), (c) SEQ ID NO:12 and SEQ ID NO:27 (antibody T427), (d) SEQ ID NO:13 and SEQ ID NO:28 (antibody T405), and (e) SEQ ID NO:40 and SEQ ID NO:41 (antibody T408).

81. A kit for detecting the presence of a CD30+ cancer cell in a biological sample, said kit comprising:

(a) a container, and

(b) an anti-CD30 antibody selected from the group consisting of: an antibody that binds specifically to a stalk of CD30 (SEQ ID NO:1) of a cell, or to an epitope destroyed upon cleavage of sCD30 from intact CD30, and an antibody that has at least one complementarity determining region having a sequence shown in Figures 2 and 6 of SEQ ID

NO:2, SEQ ID NO:4, SEQ ID NO:7, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:22, SEQ ID NO:29, SEQ ID NO:38 and SEQ ID NO:39, which anti-CD30 antibody is fused or conjugated to a detectable label.

82. A kit of claim 81, wherein said antibody is selected from the group consisting of an scFv, a dsFv, a Fab, or a $F(ab')_2$.